



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-7422; Directorate Identifier 2016-NM-079-AD; Amendment 39-18579; AD 2016-13-14]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-400 series airplanes. This AD requires an inspection to determine if certain left and right main landing gear (MLG) retract actuator rod ends are installed and repetitive liquid penetrant inspections (LPIs) of affected left and right MLG retract actuator rod ends, and corrective actions if necessary. This AD also provides optional terminating action for the inspections. This AD was prompted by a report of cracked MLG retract actuator rod ends. We are issuing this AD to detect and correct fatigue cracking of the left and right MLG retract actuator rod ends, which could lead to left or right MLG collapse.

DATES: This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone: 416-375-4000; fax: 416-375-4539; email: thd.qseries@aero.bombardier.com; Internet: <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601

Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7422.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7422; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7329; fax: 516-794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2016-16, dated May 20, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model DHC-8-400 series airplanes. The MCAI states:

There has been a single reported case of a cracked MLG retract actuator rod end in service. A supplier disclosure letter and subsequent Bombardier analysis indicate that the MLG retract actuator rod end P/N [part number] P3A2750 and P3A2750-1 may develop fatigue cracking. This condition, if not corrected, could lead to left hand (LH) or right hand (RH) MLG collapse.

This [Canadian] AD mandates the inspection [to determine if certain left and right main landing gear MLG retract actuator rod ends are installed, repetitive LPIs of affected left and right MLG retract actuator rod ends, and corrective actions if necessary], and replacement of the LH and RH MLG retract actuator rod ends P/N P3A2750 and P3A2750-1 [which is terminating action for the repetitive LPIs].

Corrective actions includes replacing cracked MLG retract actuator rod ends. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7422.

Related Service Information under 1 CFR part 51

Bombardier, Inc. has issued Service Bulletin 84-32-142, dated May 4, 2016. The service information describes procedures for an inspection to determine if certain left and right MLG retract actuator rod ends are installed, repetitive LPIs of the left and right MLG retract actuator rod ends, and replacement of left and right MLG retract actuator rod ends. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with

the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because fatigue cracking of the left and right MLG retract actuator rod ends could lead to left or right MLG collapse. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Interim Action

We consider this AD interim action. We are currently considering requiring the replacement of affected left and right MLG retract actuator rod ends with P/N P3A6460, which will constitute terminating action for the inspections required by this AD. However, the planned compliance time for the replacement would allow enough time to provide notice and opportunity for prior public comment on the merits of the replacement.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an

address listed under the ADDRESSES section. Include “Docket No. FAA-2016-7422; Directorate Identifier 2016-NM-079-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

We estimate that this AD affects 52 airplanes of U.S. registry.

We also estimate that it will take about 1 work-hour per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$4,420, or \$85 per product.

In addition, we estimate that any necessary follow-on actions will take about 3 work-hours and require parts costing \$2,019, for a cost of \$2,274 per product. We have no way of determining the number of aircraft that might need these actions.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2016-13-14 Bombardier, Inc.: Amendment 39-18579. Docket No. FAA-2016-7422; Directorate Identifier 2016-NM-079-AD.

(a) Effective Date

This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-400, -401 and -402 airplanes, certificated in any category, serial numbers 4001, and 4003 through 4325 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Reason

This AD was prompted by a report of cracked main landing gear (MLG) retract actuator rod ends. We are issuing this AD to detect and correct fatigue cracking of the left and right MLG retract actuator rod ends, which could lead to left or right MLG collapse.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Part Number Inspection

Within 100 flight cycles after the effective date of this AD, inspect the left and right MLG retract actuator rod ends to determine if part number (P/N) P3A2750 or P3A2750-1 is installed. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number can be conclusively determined from that review.

(h) Repetitive Liquid Penetrant Inspections (LPIs)

For each left or right MLG retract actuator rod end having P/N P3A2750 or P3A2750-1: At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, do an LPI to detect cracks of the MLG retract actuator rod end, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-142, dated May 4,

2016, except as required by paragraph (k) of this AD. Thereafter, repeat the LPI at intervals not to exceed 600 flight cycles.

(1) If the MLG retract actuator rod end has accumulated more than 6,000 flight cycles as of the effective date of this AD: Inspect within 100 flight cycles after the effective date of this AD.

(2) If the MLG retract actuator rod end has accumulated 6,000 flight cycles or fewer as of the effective date of this AD: Inspect within 600 flight cycles after the effective date of this AD.

(i) Corrective Action

If any crack is found during any inspection required by paragraph (h) of this AD, before further flight replace the cracked MLG retract actuator rod end, P/N P3A2750 or P3A2750-1, with a MLG retract actuator rod end, P/N P3A6460 in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-142, dated May 4, 2016, except as required by paragraph (k) of this AD.

(j) Optional Replacement

Replacement of the left and right side MLG retract actuator rod ends, P/N P3A2750 or P3A2750-1, with left and right MLG retract actuator rod ends, P/N P3A6460, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-142, dated May 4, 2016, except as required by paragraph (k) of this AD, constitutes terminating action for the actions required by paragraphs (g) and (h) of this AD for that airplane.

(k) Exception to Paragraphs (h), (i), and (j) of This AD

If it is not possible to complete all the instructions in Bombardier Service Bulletin 84-32-142, dated May 4, 2016 because of the configuration of the airplane: Before further flight, repair using a method approved by the Manager, New York ACO, ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO).

(l) Parts Installation Prohibition

As of the effective date of this AD, no person may install a left or right MLG retract actuator rod end, P/N P3A2750 or P3A2750-1, on any airplane.

(m) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(n) Related Information

Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2016-16, dated May 20, 2016, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7422.

(o) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 84-32-142, dated May 4, 2016.

(ii) Reserved.

(3) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5,

Canada; telephone: 416-375-4000; fax: 416-375-4539; email:

thd.qseries@aero.bombardier.com; Internet: <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on June 22, 2016.

Dorr M. Anderson,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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